GAG GTG CAT CTG GTG GAG TCT GGG GGA GAC TTA GTG AGG CCT GGA glu val his leu val glu ser gly gly asp leu val arg pro gly

GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA TTC ACT TTC GGA gly ser leu lys leu ser cys ala ala ser gly phe thr phe gly

CDR1

AGT TAT GGC ATG TCT TGG GTT CGC CAG ACT GCA GAC AAG AGG CTG ser tyr gly met ser trp val arg gln thr ala asp lys arg leu

CDR2

GAG TGG GTC GCA ACC ATT TAT AGT GGT GGT TTT TAC ACC TAC TAT glu trp val ala thr ile tyr ser gly gly phe tyr thr tyr tyr

CCA GAC AGT GTG AGG GGA CGA TTC ACC ATC TCC AGA GAC AAT GTC pro asp ser val arg gly arg phe thr ile ser arg asp asn val

AAG GAA ATC GTG TAT CTG CAA ATG AGC AGT CTG AAG TCT GAG GAC lys glu ile val tyr leu gln met ser ser leu lys ser glu asp

CDR3

ACA GCC ATG TAT TAC TGT GCA AGA CGG ACG GTA GTA TCT ACG GAC thr ala met tyr tyr cys ala arg arg thr val val ser thr asp

TAT ACT TTG GAC TAC TGG GGT CAA GGA ACC TCA GTC ATC GTC TCC tyr thr leu asp tyr trp gly gln gly thr ser val ile val ser

TCA (SEQ ID NO:1)

ser (SEQ ID NO:2)

GAT ATC CAG ATA ACA CAG ATT ACA TCC TCC CTG GCT GCC TCT CTG asp ile gln ile thr gln ile thr ser ser leu alà ala ser leu

GGA GAC AGA GTC ACC ATC AGT TGC CGG CCA AGT CAG GAC ATC AGC gly asp arg val thr ile ser cys arg pro ser gln asp ile ser

AAT TTT TTA AAC TGG TTT CAG CAG AAA CCA GAT GGA ACT GTT GAA asn phe leu asn trp phe gln gln lys pro asp gly thr val glu

CDR2

GTC CTG ATC TGC TAC ACA TTA AGA ATG CAC TTA GGA GTC CCA TCA val leu ile cys tyr thr leu arg met his leu gly val pro ser

ACG TTC AGT GGC TGT GTG TCT GGA ACA TAT TAT ACT CTC ACC AGT thr phe ser gly cys val ser gly thr tyr tyr thr leu thr ser

AGC AAC CTG GAA CAA GAA GAT ATA GAC ACT TCC TTT GCC ATT AGG ser asn leu glu gln glu asp ile asp thr ser phe ala ile arg

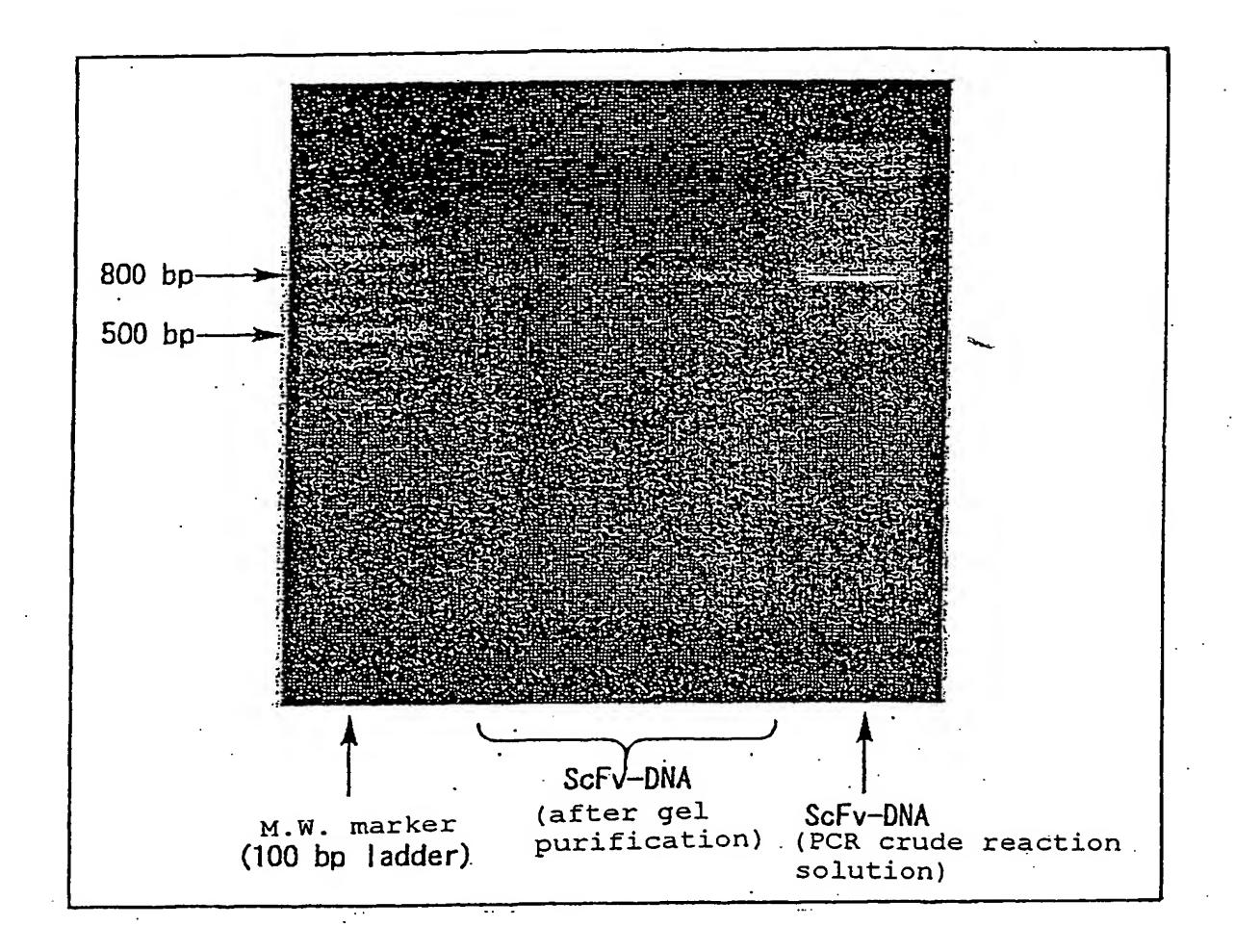
CDR3

ATT ATA CGC GTG CTC ACG GTC GGT GCA GGG ACC ACG CTG GAG CTG ile ile arg val leu thr val gly ala gly thr thr leu glu leu

AAA (SEQ ID NO:3)

lys (SEQ ID NO:4)

FIG.3



GAT GTA CAA CTT CAG GAG TCA GGA CCT GGC CTC GTG AAA CCT TCT asp val gln leu gln glu ser gly pro gly leu val lys pro ser GAG TCT CTG TCT CTC ACC TGT TCT GTC ACT GGC TAC TCC ATC ACC glu ser leu ser leu thr cys ser val thr gly tyr ser ile thr CDR1 AGT GGT TAT TAC TGG AAT TGG ATC CGG CAA TTT CCA GGA AAC AAA ser gly tyr tyr trp asn trp ile arg gln phe pro gly asn lys CDR2 CTG GAT TGG ATG GGC CAT ATA AGT TAC GAC GGT AAC AAT AAC TAC leu asp trp met gly his ile ser tyr asp gly asn asn asn tyr AAC CCA TCT CTC AAA AAT CGA ATC TCC ATC ACT CGT GAC ACA TCT asn pro ser leu lys asn arg ile ser ile thr arg asp thr ser AAG AAC CAG TTT TTC CTG AAG TTG AAT TCT GTG ACT ACT GAG GAC lys asn gln phe phe leu lys leu asn ser val thr thr glu asp CDR3 ACA GAT ACA TAT TAC TGT TCT ATG ATC CTC TAT GGT ATG GAC TAC thr asp thr tyr tyr cys ser met ile leu tyr gly met asp tyr TGG GGT CAG GGA ACC TCA GTC ACC GTC TCC TCA (SEQ ID NO:24) trp gly gln gly thr ser val thr val ser ser (SEQ ID NO:25)

CAG ATT GTT CTC ACC CAG TCT CCA GCA ATC ATG TCT GCA TCT CTA gln ile val leu thr gln ser pro ala ile met ser ala ser leu CDR1 GGG GAA CGG GTC ACC ATG ACC TGC ACT GCC AGC TCA AGT GTA AGT gly glu arg val thr met thr cys thr ala ser ser ser val ser TCC AGT TAC TTG CAC TGG TAC CAG CAG AAG CCA GGA TCC TCC CCC ser ser tyr leu his trp tyr gln gln lys pro gly ser ser pro CDR2 AAA CTC TGC ATT TAT AGC ACA TCC AAC CTG GCT TCT GGA GTC CCA lys leu cys ile tyr ser thr ser asn leu ala ser gly val pro ACT CGC TTC AGT GGC AGT GGG TCT GGG ACC TCT TAC TCT CTC ACA thr arg phe ser gly ser gly ser gly thr ser tyr ser leu thr ATA AGC AGC ATG GAG GCT GAA GAT GCT GCC ACT TAT TAC TGC CAC ile ser ser met glu ala glu asp ala ala thr tyr tyr cys his CDR3 CAG TAT CAT CGT TCC CCA CCC ACG TTC GGC TCG GGG ACA AAG TTG gln tyr his arg ser pro pro thr phe gly ser gly thr lys leu GAA ATA AAA (SEQ ID NO:26) glu ile lys (SEQ ID NO:27)

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DH-150 GAG GTG CAT CTG GTG GAG TCT GGG GGA GAC TTA GTG AGG CCT GGA
        GAT GTA CAA CTT CAG GAG TCA GGA CCT GGC CTC GTG AAA CCT TCT
        glu val his leu val glu ser gly gly asp leu val arg pro gly
        asp val gln leu gln glu ser gly pro gly leu val lys pro ser
DH-150 GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA TTC ACT TTC GGA
        GAG TCT CTG TCT CTC ACC TGT TCT GTC ACT GGC TAC TCC ATC ACC
 DF-34
        gly ser leu lys leu ser cys ala ala ser gly phe thr phe gly
        glu ser leu ser leu thr cys ser val thr gly tyr ser ile thr
                 CDR1
        AGT TAT GGC ATG TCT --- TGG GTT CGC CAG ACT GCA GAC AAG AGG
DH-150
        AGT GGT TAT. TAC. TGG AAT TGG ATC CGG CAA TTT CCA GGA AAC AAA
        ser tyr gly met ser --- trp val arg gln thr ala asp lys arg
        ser gly tyr tyr trp asn trp ile arg gln phe pro gly asn lys
                                                     CDR2
DH-150 CTG GAG TGG GTC GCA ACC ATT TAT AGT GGT GGT TTT TAC ACC TAC
DF-34 CTG GAT TGG ATG GGC CAT ATA AGT --- TAC GAC GGT AAC AAT AAC
        leu glu trp val ala thr ile tyr ser gly gly phe tyr thr tyr
        leu asp trp met gly his ile ser --- tyr asp gly asn asn asn
        TAT CCA GAC AGT GTG AGG GGA CGA TTC ACC ATC TCC AGA GAC AAT
DH-150
        TAC AAC CCA TCT CTC AAA AAT CGA ATC TCC ATC ACT CGT GAC ACA
        tyr pro asp ser val arg gly arg phe thr ile ser arg asp asn
        tyr asn pro ser leu lys asn arg ile ser ile thr arg asp thr
DH-150 GTC AAG GAA ATC GTG TAT CTG CAA ATG AGC AGT CTG AAG TCT GAG
        TCT AAG AAC CAG TTT TTC CTG AAG TTG AAT TCT GTG ACT ACT GAG
DF-34
        val lys glu ile val tyr leu gln met ser ser leu lys ser glu
        ser lys asn gln phe phe leu lys leu asn ser val thr thr glu
                                                           CDR3
        GAC ACA GCC ATG TAT TAC TGT GCA AGA CGG ACG GTA GTA TCT ACG
DH-150
        GAC ACA GAT ACA TAT TAC TGT TCT ATG ATC CTC TAT GGT --- ---
DF-34
        asp thr ala met tyr tyr cys ala arg arg thr val val ser thr
        asp thr asp thr tyr tyr cys ser met ile leu tyr gly --- ---
        GAC TAT ACT TTG GAC TAC TGG GGT CAA GGA ACC TCA GTC ATC GTC
DH-150
        --- --- ATG GAC TAC TGG GGT CAG GGA ACC TCA GTC ACC GTC
DF-34
        asp tyr thr leu asp tyr trp gly gln gly thr ser val ile val
        --- --- met asp tyr trp gly gln gly thr ser val thr val
        TCC TCA (SEQ ID NO:1)
DH-150
DF-34
        TCC TCA (SEQ ID NO:24)
        ser ser
                 (SEQ ID NO:2)
        ser ser
                 (SEQ ID NO:25)
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